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TITLE: Multiple endpoint paths

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INVENTOR-INFORMATION:

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US-CL-CURRENT: 370/227, 370/217 , 370/218 , 379/221.01

ABSTRACT:

A multiple endpoint path for providing endpoint redundancy is described. Selected active end nodes in a digital communications network are configured by a network management system to have compatible alternate endpoint paths.

When

one of the selected active endpoint paths fails, the network management system automatically switches the endpath from the previously active endpoint to the alternate end point path.

15 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

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Application Filing Date - AD (1):

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Detailed Description Text - DETX (6):

When a pathend of a multiple endpoint path fails, the status of the path will become connected-down if no alternate pathend has been defined. Otherwise an attempt will be made to reroute the path using the alternate pathend. This means that before the connections of the old route are disconnected a path **search** will be done to **find** a new route. The new route will then be compared to the old route to **find** any common connections. The common connections will be retained while all other connections from the old path will be disconnected and new connections will be made from the new path.

Detailed Description Text - DETX (11):

The rerouting protocol of the invention is set out in the flow diagram of FIG. 4. At step 40 the network manager 15 receives notification of an endpoint failure respecting an identified endpoint node. At step 42 the network manager 15 requests the appropriate data **storage** or memory means to provide a list of all calls associated with the endpoint having reported the failure. This request includes each specific call as indicated at step 44 and at step 46 the memory is again **checked** to determine whether the endpoint reporting failure has an **alternate end path** defined. If there is no **alternate endpoint path** the call goes to a **connected down status**. If the answer at step 46 is affirmative, the configuration information respecting the alternate endpoint is retrieved for confirmation from memory. If the confirmation proves negative the call again goes connected-down. If affirmative, the alternate endpoint is **checked** for serviceability. If the alternate endpoint is not in service again the call goes waiting for resources at step 54. If the alternate endpoint is available and has good-status then the endpoints are switched such that the call is rerouted at step 60 using the network manger rerouting algorithm. If the reroute call is successful at step 62 then the call is connected at 66. If the rerouted call is not successful then the call goes waiting for resources at step 64.